

CLAIMS:

1. Device for embedding a secondary information signal in a channel data stream of an encoded primary information signal comprising:
 - an encoder (1) for encoding said primary information signal into a channel data stream,
 - a control unit (3) for controlling the DC content of said channel data stream,
- 5 - a secondary information signal embedding unit (2) for embedding said secondary information signal in said channel data stream by using freedoms in the DC control, and
 - an adaptation unit (4) for adapting the DC control by making non-optimal, arbitrary or random choices of the DC control at a number of locations of said channel data stream.
- 10 2. Device as claimed in claim 1, wherein said adaptation unit (4) is operative for adding random elements in the DC control.
3. Device as claimed in claim 2, wherein said adaptation unit (4) is operative for making non-optimal choices of the DC control at a number of random or fixed locations of said channel data stream.
- 15 4. Device as claimed in claim 2, wherein said adaptation unit (4) is operative for making random or non-optimal choices of the DC control at locations of said channel data stream where no secondary information signal shall be embedded.
- 20 5. Device as claimed in claim 1, wherein said adaptation unit (4) is operative for making random or non-optimal choices of the DC control at different locations of said channel data stream by controlling the encoder to make a state swap or to select a main table or a substitution table for encoding of the primary information signal.
- 25 6. Device as claimed in claim 1, further comprising a storage unit (7) for storing a location information specifying the location of the secondary information signal in said channel data stream.

7. Device as claimed in claim 6, wherein said secondary information signal embedding unit (2) is adapted for embedding secondary information data at different locations within different codewords and/or different data frames.

5 8. Device as claimed in claim 6, wherein said storage unit (7) is adapted for storage of said location information in a look-up table.

9. Device as claimed in claim 6, wherein said storage unit (7) is adapted for storing said location information in encoded form in said primary information signal or in a 10 third information signal to be embedded in said channel data stream.

10. 10. Device as claimed in claim 8, further comprising a location information determination unit (8, 9) for determining said location information based on a predetermined setting or an information read from said primary information signal or a third information 15 signal.

11. 11. Method of embedding a secondary information signal in a channel data stream of an encoded primary information signal comprising the steps of:
- encoding said primary information signal into a channel data stream,
20 - controlling the DC content of said channel data stream,
- embedding said secondary information signal in said channel data stream by using freedoms in the DC control, and
- adapting the DC control by making non-optimal, arbitrary or random choices of the DC control at a number of locations of said channel data stream.

25 12. 12. Device for extracting a secondary information signal from a channel data stream of an encoded primary information signal comprising:
- a decoder (10) for decoding said channel data stream into a primary information signal, a
- secondary information signal extracting unit (11) for extracting said secondary information 30 signal from said channel data stream by detection of the DC control information in said channel data stream by use of location information specifying the location of said secondary information signal in said channel data stream.

13. Device as claimed in claim 12, further comprising a storage unit (12) for storing said location information.
14. Device as claimed in claim 12, further comprising a location information decoder (13, 14) for retrieving said location information from said channel data stream.
15. Device as claimed in claim 14, wherein said location information decoder (13, 14) is adapted for decoding a third information signal carrying said location information from said channel data stream or for decoding said information signal from said primary information signal.
16. Method for extracting a secondary information signal from a channel data stream of an encoded primary information signal comprising the steps of:
 - decoding said channel data stream into a primary information signal,
 - extracting said secondary information signal from said channel data stream by detection of the DC control information in said channel data stream by use of location information specifying the location of said secondary information signal in said channel data stream.
17. Computer program comprising program code means for causing a computer to carry out the steps of the method as claimed in claim 11 or 16 when said computer program is run on a computer.
18. A record carrier comprising a secondary information signal in a channel data stream of an encoded primary information signal, the secondary information being embedded in said channel data stream by using freedoms in the DC control and by adapting the DC control by making non-optimal, arbitrary or random choices of the DC control at a number of locations of said channel data stream.